DATA ANALYTICS

Data Analytics is the study and usage of big data. Big data is increasingly being used to track, analyze, and inform major decisions for policy, business, and other organizational needs. According to a study by the McKinsey Global Institute, the U.S. will soon face a shortage of data scientists, managers, and analysts who can understand and make decisions using big data. As the demand for professionals well-versed in data interpretation grows, the opportunities to start a career in big data can begin with the right education that covers the fundamentals of computer science and data analysis, and enhanced by engineering principles and data management. Data is no longer limited to tech companies and statistical organizations—it can be applied to virtually any sector, making a well-rounded education in data analytics essential to one’s professional success.

Skills Acquired
- Apply different techniques to analyze and interpret data
- Store, clean, and transform large-scale data sets
- Work on multidisciplinary teams
- Solve problems within realistic constraints
- Improve decision-making processes in tech and business organizations

Sample Occupations
- Data Analyst
- Data Engineer
- Analytics Manager
- Data Security Analyst
- Data Scientist
- Statistician
- Business Analyst

Sample Work Settings
- Government and Defense
- Information Systems and Technology
- Management Consulting
- E-Commerce, Finance, and Banking

Sample Employers
- IBM
- Cloudera Inc.
- Accenture LLP
- Lottery Technology Enterprises Inc.
- Google Inc.
- Microsoft Corporation
- Oracle

Statisticians* Annual Salary (BLS, 2017): Regional Average: $106,110 | National Average: $88,980

PROFESSIONAL ORGANIZATIONS
Learn more about the field, network, and search for scholarship, internship, and job opportunities.
- Data Science Association www.datascienceassn.org
- SigKDD www.kdd.org
- American Statistical Association www.amstat.org
- International Institute for Analytics www.iianalytics.com
- International Institute of Business Analysis www.iiba.org
- INFORMS www.informs.org/Get-Involved/Welcome-Data-Scientists

JOB SEARCH RESOURCES
Keywords: Big Data, Analytics, Data Management
- Engineering Central www.engcen.com
- Engineering Jobs www.engineerjobs.com
- Engineering.com www.engineering.com/jobs
- iHireEngineering www.ihireengineering.com
- Data Jobs https://datajobs.com
- Hired https://hired.com

*The Bureau of Labor Statistics does not currently list Data Analyst as a separate occupation within the Mathematical Science occupation category.